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Subject Index (A – L)

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Twice a year as part of their subscription to Electrical & Electronics Abstracts, subscribers receive cumulative indexes for the periods January-June and July-December. Each index is in two parts – a Subject Index, and an Author Index which comprises personal and corporate author indexes, and indexes to conferences and book titles. The List of Journals abstracted by INSPEC is also included with the July-December issue of the Author Index, while the supplement to that List is included with the January-June issue. Cumulative indexes for earlier years are also available: for details please see the inside back cover.

Subject index

The Subject index provides an alphabetical subject key to the articles included in the abstracts journal. Some general guidance on its use is given below:

1. Look in the index for the name of the specific subject in which you are interested. In most cases this name will be a heading in the index and you will find relevant articles under it. The majority of the subject headings fall into the following categories: property, phenomenon, substance or named objects, instrument, device, theory, method, process, application, event.
2. Occasionally you will be directed from the subject heading chosen to a different heading under which the relevant or additional articles are listed.
3. If you do not find the subject heading you first chose, try a more general heading.
4. Each entry under the heading relates to an article appearing in the abstracts journal and gives the serial number of that article in the journal, e.g. 12345 refers to abstract number 12345 for the period covered by the Index.

The language of the article, if it is not in English, is also indicated, e.g. amplification of information signals in chaotic masking (*Japanese*) 34992.

Each entry starts with a Keyword or Keyphrase considered to be most relevant to the heading. On sorting these Keywords, the qualifying prefixes are usually ignored (e.g. α -brass, 5-sulphosalicylic, 31 Gygni, n-Ge are sorted under brass, sulphosalicylic, Cygni, Ge respectively).

There are three main Keyword lists: alphabetical A-Z, elementary particles, and chemical symbols (organic substances are written and not given as chemical formula). More than one Keyword list may be present under each subject heading.

For document on, say, 'photoemission of germanium' at least two access points 'photoemission' and 'germanium' are provided. Under the heading 'photoemission' the Keyword will be 'Ge' and under 'germanium' the Keyword will be 'photoemission'.

In a case like this, it is advisable and quicker to use the heading 'photoemission' and go straight to the chemical symbol list for 'Ge'.

Intermetallic compounds are indexed under the appropriate alloy headings. The chemical formula is used as Keyword. However, it is important to realise in searching the chemical symbol list that, at present, alloys and intermetallic compounds are sorted separately. For example FeCo is sorted at the end of the Fe-list e.g. Fe-Al,... Fe-Co,... Fe-Si,... Fe-Si-B,... FeCo,... FeSi and so on in this order.

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Abbreviations and Acronyms

Abbreviations and acronyms are used in the modifiers in all INSPEC Cumulative Subject Indexes. Individual terms should be readily understood in the context of the subject headings. **Inorganic substances** are usually given by their chemical formulae. **Organic substances** including **liquid crystals** and **polymers** are not given as formulae but common abbreviations are used.

1D	one-dimensional	ALE	atomic layer epitaxy <i>or</i> adaptive line enhancer
2D	two-dimensional	ALGOL	Algorithmic Language
2DEG	2D electron gas	ALS	Advanced Light Source
3D	three-dimensional	ALU	arithmetic logic unit
4GL	fourth generation language	ALV	autonomous land vehicle
A/D	analogue-to-digital	ALWR	advanced light water reactor
AAL	ATM adaptation layer	AM	air mass number <i>or</i> amplitude modulation
AAS	atomic absorption spectrometry (-oscopy)	AM/FM	automated mapping/facilities management
ABC	absorbing boundary condition <i>or</i> aerial bundled cables/conductors	AMLCD	active matrix liquid crystal display
ABR	available bit rate	AMPS	Advanced Mobile Phone System
ABS	acrylonitrile-butadiene-styrene	AMPTE	Active Magnetospheric Particle Tracer Explorers
AC	alternating current	AMR	automatic meter reading
ACD	automatic call distribution	AMS	accelerator mass spectroscopy
ACEL	AC electroluminescent	AMTEC	alkali metal thermoelectric convertor
ACI	adjacent channel interference	ANA	automatic network analyser
ACQW	asymmetric coupled quantum well	ANN	artificial neural network
ACRT	accelerated crucible rotation technique	ANOVA	analysis of variance
ACSR	aluminium conductor steel reinforced	ANS	Advanced Neutron Source
ACT	acoustic charge transport	ANSI	American National Standards Institute
ACTFEL	AC thin film electroluminescent	AO	acousto-optic(al)
ACTS	advanced communication technology and services <i>or</i> Advanced Communication Technology Satellite	AOI	automatic optical inspection
ACTV	advanced compatible television	APACHE	Accelerator for Physics and Chemistry of Heavy Elements
ACV	air cushion vehicle	APC	adaptive predictive coding
ADC	analogue-to-digital conversion(-ter)	APCM	adaptive PCM
ADM	adaptive delta modulation <i>or</i> add-drop multiplexer	APCVD	atmospheric pressure CVD
ADP	administrative data processing	APD	antiphase domain <i>or</i> avalanche photodiode
ADPCM	adaptive differential PCM	APFIM	atom probe field ion microscopy
ADS	automatic depressurisation system	API	application programming interface
ADSL	asymmetric digital subscriber line	APK	amplitude phase keying
ADTV	advanced definition television	APL	A Programming Language
AE	acoustic emission	APS	Advanced Photon Source <i>or</i> appearance potential spectra (-oscopy)
AEA	American Electronics Association	APW	augmented plane wave
AES	Auger electron spectra (-oscopy)	APWR	advanced pressurised water reactor
AF	audio-frequency	ARC	antireflection coating
AFBC	atmospheric fluidised bed combustion	ARET	accelerated reliability enhancement testing
AFC	automatic frequency control	ARINC	Aeronautical Radio Inc.
AFL	abstract family of languages	ARMA	autoregressive moving average
AFM	atomic force microscopy	ARMAX	ARMA exogenous
AFMR	antiferromagnetic resonance	ARPA	Advanced Research Projects Agency
AFR	away from reactor (spent fuel storage)	ARPES	angle resolved photoemission spectra (-oscopy)
AGB	asymptotic giant branch	ARQ	automatic repeat request
AGC	automatic gain control	ARROW	antiresonant reflecting optical waveguide
AGN	active galactic nucleus (nuclei)	ART	adaptive resonance theory
AGR	advanced gas-cooled reactor	ARUPS	angular resolved UPS
AGS	alternating gradient synchrotron	ASCII	American Standard Code for Information Interchange
AGV	automatic guided vehicle	ASD	adjustable speed drives
AHDL	analogue HDL	ASE	amplified spontaneous emission
AHP	analytic hierarchy process	ASIC	application-specific integrated circuit
AI	artificial intelligence	ASIP	application-specific integrated processor
AIC	adaptive interference canceller	ASK	amplitude shift keying
AIN	advanced intelligent networks		
ALARA	as low as reasonably achievable		

ASN	abstract syntax notation	BIL	buried injection logic
ASPSK	antipodal Stokes parameters shift keying	BILBO	built-in logic block observation
ASQC	American Society of Quality Control	BiMOS	bipolar metal-oxide-semiconductor
ASSP	application-specific standard product	BIOS	basic input/output system
AST	accelerated stress testing	BIS	bremsstrahlung isochromat spectroscopy
AT&T	American Telephone & Telegraph	BISDN	broadband ISDN
ATC	air traffic control	BISR	built-in self-repair
ATCS	Advanced Train Control System	BIST	built-in self-test
ATE	automatic test equipment	BIT	built-in test
ATF	Advanced Toroidal Facility	BITE	built-in test equipment
ATG	automatic test generation	BJT	bipolar junction transistor
ATLAS	Abbreviated Test Language for Avionic Systems	BLDCM	brushless DC motor
ATM	asynchronous transfer mode <i>or</i> automatic teller machine <i>or</i> Axilrod-Teller-Moto	BNFL	British Nuclear Fuels plc
ATMS	assumption-based truth maintenance system	BOC	Bell Operating Company
ATPG	automatic test pattern generation	BOD	bistable optical device
ATR	attenuated total reflection <i>or</i> automatic target recognition	BOLD	blood oxygenation level dependence(-ent)
ATS	automatic test system	BOX	buried oxide
ATV	advanced television	BP	backpropagation <i>or</i> British Petroleum
ATW	accelerator transmutation of (radioactive) waste	BPM	beam propagation method
ATWS	anticipated transients without scram	BPR	business process reengineering
AUV	autonomous underwater vehicle	BPSG	borophosphosilicate glass
AVC	automatic volume control	BPSK	binary phase shift keying
AVHRR	advanced very high-resolution radiometer	BPX	burning plasma experiment
AWGN	additive white Gaussian noise	BRDF	binomial reflectivity distribution function
B-ISDN	broadband ISDN	BRET	breeder reprocessing engineering test
BAER	brainstem auditory evoked response	BSDL	Boundary Scan Description Language
BARITT	barrier injection transit time	BSG	borosilicate glass
BASIC	Beginners' All-purpose Symbolic Instruction Code	BSI	British Standards Institution
BAW	bulk acoustic wave	BT	British Telecom
BBC	British Broadcasting Corporation	BTA	Basic Technology Accelerator
BBD	bucket-brigade device	BTSC	Broadcast Television Systems Committee
BBGKY	Bogoliubov-Born-Green-Kirkwood-Yvon	BVP	boundary value problem
BCB	benzocyclobutene	BWG	beam waveguide
BCC	body-centred cubic	BWIP	Basalt Waste Isolation Project
BCD	binary-coded decimal	BWO	backward wave oscillator
BCDMOS	bipolar-CMOS-DMOS	BWR	boiling water reactor
BCH	Bose-Chadhuri-Hocquenghem	BWT	backward wave tube
BCS	Bardeen-Cooper-Schrieffer	C-V	capacitance-voltage
BCT	body centred tetragonal	C/N	carrier-to-noise
BDD	binary decision diagram	C ²	command and control
BEBC	Big European Bubble Chamber	C ³	command, control and communications
BEC	Bose-Einstein condensate (-ation)	C ³ I	command, control, communications and intelligence
BEDT-TTF	bis(ethylenedithio)-tetrathiafulvalene (-inium)	C ³ L	complementary constant current logic
BEEM	ballistic electron emission microscopy	C ⁴	command, control, communications and computers
BEM	boundary element method	C ⁴ I	command, control, communications, computers and intelligence
BEOL	back-end-of-line	C4	controlled collapse chip connection
BEPC	Beijing Electron Positron Collider	CAA	computer-aided analysis
BER	bit error rate	CAA(A)	Clean Air Act (amendments)
BERT	bit error rate tester	CAAD	computer-aided architectural design
BESOI	bond-and-etchback silicon on insulator	CAD	computer-aided design
BFL	buffered FET logic	CADAT	computer-aided design and testing
BFN	beam-forming network	CADD	computer-aided drafting and design
BFO	beat-frequency oscillator	CAE	computer-aided engineering
BGA	ball grid array	CAES	compressed air energy storage
BGO	bismuth germanate	CAGD	computer-aided geometric design
BH	buried heterostructure	CAI	common air interface <i>or</i> computer-assisted instruction
BIBO	bounded input, bounded output	CAIBE	chemically assisted ion beam etching
BICMOS	bipolar CMOS	CAL	computer-aided learning
BIFET	bipolar FET	CALL	computer-assisted language learning
		CALS	commerce at light speed <i>or</i> computer-aided acquisition and logistic(s) support

CAM	computer-aided manufacturing <i>or</i> content addressable memory	CEBAF	Continuous Electron Beam Accelerator Facility
CAMAC	computer automated measurement and control	CECL	cascade-emitter coupled logic
CAN	controller area network(ing)	CELP	code excited linear prediction
CANDU	Canadian deuterium uranium	CEM	channel electron multiplier
CAPP	computer-aided process (production) planning	CEMS	conversion electron Mössbauer spectra (-scopy)
CAQ	computer-aided quality assurance	CEO	chief executive officer
CAR	computer-aided retrieval	CEPA	coupled electron pair approximation
CARL	chemical amplification of resist lines	CEPT	Conference of European Postal and Telecommunications
CARM	cyclotron autoresonance maser	CERDIP	ceramic dual-in-line package
CARS	coherent anti-Stokes Raman scattering (spectra)	CERN	European Council for Nuclear Research
CART	classification and regression trees	CESAR	CERN Electron Storage and Accumulation Ring
CASE	computer-aided software engineering	CESR	conduction electron spin resonance
CASS	consolidated automated support system	CETI	contact with extraterrestrial intelligence
CAT	computer-assisted tomography <i>or</i> computerised axial tomography	CFA	continued fraction approximation
CATR	compact antenna test range	CFAR	constant false alarm rate
CATT	controlled avalanche transit transistor	CFBC	circulating fluidised bed combustion
CATV	cable TV <i>or</i> community antenna TV	CFC	chlorofluorocarbon
CAV	constant angular velocity	CFD	computational fluid dynamics
CB	citizens band	CFIE	combined field integral equation
CBE	chemical beam epitaxy	CFSK	coherent frequency shift keying
CBED	convergent beam electron diffraction	CFT	conformal field theory
CBI	computer-based instruction	CGA	colour (<i>or</i> computer) graphics adapter
CBL	computer-based learning	CGH	computer-generated holography (-gram)
CBOOA	cyanobenzylidene octyloxylaniline	CGI	Common Gateway Interface
CBR	case-based reasoning <i>or</i> constant bit rate	CGTO	contracted Gaussian-type orbital
CBT	computer-based training	CHF	coupled Hartree-Fock
CC	coupled channels <i>or</i> calculus of constructions	CHILL	CCITT High-Level Language
CCBA	coupled channel Born approximation	CHINT	charge injection transistor
CCCS	current-controlled current source	CHO	Chinese hamster ovary
CCD	charge-coupled device	CHP	combined heat and power
CCFL	counter current flow limiting (LOCA phenomenon)	CI	configuration interaction
CCI	co-channel interference	CICC	cable-in-conduit conductor
CCII	second generation current conveyor	CID	charge injection device
CCIR	International Radio Consultative Committee	CIDEP	chemically induced dynamical electron polarisation
CCITT	International Telephone & Telegraph Consultative Committee	CIDNP	chemically induced dynamical nuclear polarisation
CCL	capacitor coupled logic	CIIL	Common Instrument Interface Language <i>or</i> Control Intermediate Interface Language
CCN	cloud condensation nucleus/nuclei	CIM	computer integrated manufacture (-ing) <i>or</i> constituent interchange model
CCS	common channel signalling <i>or</i> calculus of communicating systems	CIO	chief information officer
CCTF	Cylindrical Core Test Facility	CIRC	cross-interleaved Reed-Solomon code
CCTR	Culham Conceptual Tokamak Reactor	CISC	complex instruction set computer
CCTV	closed circuit TV	CIT	Compact Ignition Tokamak
CCVS	current-controlled voltage source	CL	cathodoluminescence
CD	compact disc <i>or</i> critical dimension	CLAN	cordless LAN
CD-I	compact disc - interactive	CLC	cholesteric liquid crystal
CD-ROM	compact disc ROM	CLCC	ceramic leaded chip carrier
CD-RW	compact disc - rewritable	CLEC	competitive local exchange carrier
CD-V	compact disc - video	CLOS	command-to-line-of-sight
CDD	concurrent decision diagram	CLP	constraint logic programming
CDFR	Commercial Demonstration Fast Reactor	CLV	constant linear velocity
CDI	collector diffusion isolation	CMA	constant modulus algorithm
CDLC	cellular data link control	CMAC	cerebellar model arithmetic computer <i>or</i> cerebellar model articulation controller
CDM	code division multiplexing <i>or</i> charged device model <i>or</i> cold dark matter	CMB	core-mantle boundary
CDMA	code division multiple access	CMD	colour-magnitude diagram(s)
CDP	common depth point	CME	coronal mass ejection(s)
CDW	charge-density wave	CMI	computer managed instruction

CMIP	Common Management Information Protocol	CRMA	cyclic reservation multiple access
CML	current-mode logic	CRNL	Chalk River Nuclear Laboratories
CMM	coordinate measuring machine <i>or</i> Capability Maturity Model	CRO	cathode ray oscilloscope
CMOS	complementary metal-oxide-semiconductor	CRSR	coherent resonant Stokes rotation
CMP	chemical mechanical polishing (planarisation)	CRT	cathode ray tube
CMR	colossal magnetoresistance <i>or</i> common-mode rejection	CS	coupled states
CMRR	common-mode rejection ratio	CSCW	computer supported cooperative work
CMS	cable management system	CSI	current source inverter
CMV	common-mode voltage	CSM	continuous slowing down models
CMVR	common-mode voltage ratio	CSMA/CD	CSMA with collision detection
CNC	computerised numerical control	CSMA	carrier sense multiple access
CNDO	complete neglect of differential overlap	CSP	channel substrate planar <i>or</i> chip-scale packaging <i>or</i> communicating sequential processes <i>or</i> constraint satisfaction problem
CNF	conjunctive normal form	CSRS	coherent Stokes-Raman spectra (-oscopy)
CNN	cellular neural net(work)	CSS	contact start/stop
CNR	carrier-to-noise ratio	CSSB/AM	companded single-sideband AM
CNS	central nervous system	CSTR	continuous stirred tank reactor
CO	central office	CSVT	close-spaced vapour transport
COB	chip-on-board	CT	computerised tomography <i>or</i> current transformer
COBOL	Common Business Oriented Language	CT1/2/3	cordless telephony (of 1st, 2nd, 3rd generation)
COCOMO	cost complexity model(ling)	CTD	charge transfer device
COD	crack opening displacement	CTE	coefficient of thermal expansion
COFDM	coded orthogonal FDM	CTI	computer telephony integration
COG	chip-on-glass	CTL	complementary-transistor logic
COIL	chemical oxygen-iodine laser	CTR	controlled thermonuclear reactor
COM	computer output to microform (fiche <i>or</i> film) <i>or</i> coupling of modes <i>or</i> Component Object Model	CUI	character-based user interface
COMFET	conductivity-modulated FET	CUT	circuit under test
CORBA	Common Object Request Broker Architecture	CV	cataclysmic variable(s)
CORDIC	coordinate rotation digital computer	CVD	chemical vapour deposition
COTS	commercial off-the-shelf	CVI	chemical vapour infiltration
COVA	computer code validation	CVSDM	continuously-variable slope delta modulation
CP	charge, parity	CVT	chemical vapour transport
CP-MAS	cross-polarisation MAS	CW	continuous wave
CPA	coherent potential approximation <i>or</i> critical path analysis	CZ	Czochralski
CPC	compound parabolic concentrator	D/A	digital-to-analogue
CPE	customer premises equipment	DAB	digital audio broadcasting
CPFSK	continuous phase FSK	DAC	digital-to-analogue conversion(-ter)
CPLD	complex programmable logic device	DACS	digital access and cross-connect system
CPM	continuous phase modulation <i>or</i> critical path method	DAD	digital audio disc
CPN	coloured Petri net <i>or</i> customer premises network	DAG	directed acyclic graph
CPS	coplanar strip(line)	DAI	distributed artificial intelligence
CPSK	coherent phase shift keying	DAMA	demand assigned multiple access
CPT	charge, parity, time	DAQ	data acquisition
CPU	central processing unit	DARMA	deterministic autoregressive moving average
CPV	common pressure vessel	DARPA	Defense Advanced Research Projects Agency
CPW	coplanar waveguide	DASD	direct access storage device
CQPSK	coherent quadrature PSK	DAT	digital audio tape
CRBR	Clinch River Breeder Reactor Project	DATAAC	digital autonomous terminal access communication
CRC	cyclic redundancy check	DAW	dry active waste
CRCW	concurrent read, concurrent write	DBMS	database management system
CRDA	control rod drop accident	DBPSK	differential-binary phase-shift keying
CREAM	cosmic radiation environment and activation monitor	DBR	distributed Bragg reflector
CREDO	cosmic radiation environment dosimetry experiment	DBS	direct broadcasting by satellite
CREW	concurrent read, exclusive write	DC	direct current
		DC-PBH	double-channel PBH
		DCA	direct chip attach <i>or</i> dynamic channel allocation
		DCE	distributed computing environment

DCEL	direct current electroluminescent	DMSK	differential minimum shift keying
DCFL	direct-coupled FET logic	DMSO	dimethylsulphoxide
DCG	dichromated gelatin	DMU	decision-making unit
DCLC	drift cyclotron loss cone (instability)	DNA	deoxyribonucleic acid or Digital Network Architecture
DCOM	Distributed Component Object Model	DNF	disjunctive normal form
DCS	digital cross-connect system or digital cellular service (system) or distributed control system	DNMR	double nuclear magnetic resonance
DCT	discrete cosine transform	DNS	domain name system
DCTL	direct-coupled transistor logic	DNTS	digital data exchange network testing system
DCVS	differential cascode voltage switch	DOA	direction of arrival
DDC	direct digital control	DOBAMBC	p-decyloxybenzylidene p'-amino 2-methyl butyl cinnamate
DDE	dynamic data exchange	DoD	Department of Defense (USA)
DDL	diode-diode logic	DOE	Department of Energy (USA) or design of experiments or diffractive optical element
DDS	direct digital synthesis	DOF	degree(s) of freedom
DE	differential equation	DOI	document object identifier
DECENT	distribution of exact classical energy transfer	DOPSK	differential offset phase shift keying
DECT	digital European cordless telecommunication (or telephone)	DORIS	Doppel-Ring-Speicher
DEDS	discrete event dynamic system	DOS	disc operating system or density of states
DEFT	density functional theory	DOVETT	double velocity transit time
DEM	digital elevation model(s)	DOX	design of experiments
DEMUX	demultiplexer(-ing)	DP	data processing
DENOX	nitrogen oxides removal	DPCM	differential PCM
DES	data encryption standard	DPDA	deterministic pushdown automaton
DESIRE	diffusion enhanced silylating resist	DPIV	digital particle image velocimetry
DESY	Deutsches Electron Synchrotron	DPLL	digital phase locked loop
DEVS	discrete event system specification	DPOAE	distortion product otoacoustic emission
DF	Dirac-Fock	DPPC	dipalmitoyl phosphatidyl chloride
DFB	distributed feedback	DPPH	diphenylpicrylhydrazyl
DFE	decision feedback equaliser or design for environment	DPS	distributed parameter system
DFG	difference frequency generation	DPSK	differential phase shift keying
DFM	design for manufacture(-ability)	DQDB	distributed queue dual bus
DFT	discrete Fourier transform or design for testability	DQPSK	differential quadrature PSK
DFWM	degenerate four-wave mixing	DRAM	dynamic RAM
DGPS	differential GPS	DRO	dielectric resonator oscillator
DH	double heterostructure	DS-SS	direct sequence spread spectrum
DHBT	double heterojunction bipolar transistor	DS-SSMA	direct sequence SSMA
DHF	Dirac-Hartree-Fock	DSA	digital subtraction angiography
DHT	discrete Hartley transform or discrete Hilbert transform	DSAM	Doppler shift attenuation method
DIAL	differential-absorption lidar	DSB	double sideband
DIBL	drain induced barrier lowering	DSC	differential scanning calorimetry
DIC	digital integrated circuit	DSF	dispersion shifted fibre
DIET	desorption induced by electronic transitions	DSI	digital speech interpolation
DIL	dual-in-line	DSL	digital subscriber line
DIP	DIL package	DSM	demand side management
DIS	deep inelastic scattering or distributed interactive simulation	DSO	digital storage oscilloscope
DITE	Divertor in Torus Experiment	DSP	digital signal processor (-ing)
DLA	diffusion limited aggregation	DSRC	dedicated short-range communications
DLC	diamond-like carbon	DSS	decision support system or digital subscriber signalling
DLL	delay lock loop or dynamic link library	DST	discrete sine transform
DLMS	delayed least mean squares	DTA	differential thermal analysis
DLTS	deep level transient spectra (-oscopy)	DTL	diode transistor logic
DM	delta modulation	DTMF	dual tone multi-frequency
DMA	direct memory access	DTP	desktop publishing
DMC	dynamic matrix control	DTPP	Demonstration Tokamak Power Plant
DMD	digital micromirror device	DTU	dual topological unitarisation
DMM	digital multimeter	DUT	device under test
DMOS	double-diffused metal-oxide-semiconductor	DUV	deep UV
		DV-X α	discrete variational X α
		DVD	digital versatile (or video) disc
		DVI	digital video interactive
		DVM	digital voltmeter

DWBA	distorted wave Born approximation	EHF	extremely high frequency
DWDM	dense WDM (multiple access)	EHP	electron-hole potential method
DWIA	distorted wave impulse approximation	EHT	extended Hückel theory <i>or</i> extra high tension
DWPF	Defence Waste Processing Facility	EHV	extra high voltage
E. coli	Escherichia coli	EIA	Electronic Industries Association
E/D	enhancement-/depletion-mode	EIRP	equivalent isotropically radiated power
E1	electric dipole	EIS	electrochemical impedance spectroscopy
E2	electric quadrupole	EISA	extended Industry Standard Architecture
E ² PROM	electrically erasable PROM	EKF	extended Kalman filter
EAROM	electrically alterable ROM	EKG	electrokymography (-gram)
EAS	extensive air shower	EL	electroluminescent(-ence)
EAX	electronic automatic exchange	ELDOR	electron electron double resonance
EB	exponential Born	ELF	extremely low frequency
EBBA	4-ethoxybenzylidene-4 <i>n</i> -butylaniline	ELNES	energy loss near edge structure
EBIC	electron beam induced current(s)	ELO	epitaxial lateral overgrowth
EBIS	electron beam ion source	EM	electromagnetic <i>or</i> expectation maximisation
EBIT	electron beam ion trap	EMC	electromagnetic compatibility <i>or</i> European Muon Collaboration
EBL	explanation-based learning	EMF	electromotive force
EBR	experimental breeder reactor	EMG	electromyography (-gram)
EBT	Elmo Bumpy Torus	EMI	electromagnetic interference
EBU	European Broadcasting Union	EMP	electromagnetic pulse
ECA	event-condition-action	EMS	energy management system
ECAL	electrochemical atomic layer epitaxy	EMTP	electromagnetic transients program
ECC	emergency core cooling <i>or</i> error correction code	ENDOR	electron nuclear double resonance
ECCM	electronic counter-counter measures	ENEL	Ente Nazionale per l'Energia Elettrica (Italian National Electric Energy Agency)
ECCS	emergency core cooling system	ENG	electronic news gathering
ECELR	Epithermal Critical Experiment Laboratory Reactor	ENOB	effective number of bits
ECG	electrocardiography (-gram)	ENSO	El Nino - Southern Oscillation
ECL	emitter coupled logic	EO	electro-optic(al)
ECM	electronic countermeasures	EOF	end-of-file
ECMWF	European Centre for Medium Range Weather Forecasts	EOG	electrooculography (-gram)
ECoG	electrocortigraphy (-gram)	EOQ	economic order quantity
ECR	electron cyclotron resonance	EOS	electrical overstress
ECRH	electron cyclotron resonance heating	EPA	Environmental Protection Agency (USA)
EDA	ethylene diamine <i>or</i> electronic design automation	EPDM	ethylene propylene diene monomer
EDAX	energy-dispersive X-ray analysis	EPI	echo planar imaging
EDF	Electricité de France	EPDL	electrically programmable logic device
EDFA	erbium-doped fibre amplifier	EPMA	electron probe microanalysis
EDI	electronic data interchange	EPR	Einstein-Podolsky-Rosen <i>or</i> electron paramagnetic resonance <i>or</i> ethylene propylene rubber <i>or</i> European Pressurised water Reactor
EDIF	electronic data interchange format	EPRI	Electric Power Research Institute
EDM	electrical discharge machining	EPROM	erasable PROM
EDP	electronic data processing	EPUT	events per unit time
EDS	energy dispersive spectra (-oscopy)	ER	electrorheology(-ical) <i>or</i> entity-relationship
EDTA	ethylene diamine tetra-acetic acid	ERBE	Earth Radiation Budget Experiment
EDTV	extended definition TV	ERDA	elastic recoil detection analysis
EDW	electron density wave	EREW	exclusive read, exclusive write
EDX	energy-dispersive X-ray	ERG	electroretinography (-gram)
EEG	electroencephalography (-gram)	ERP	effective radiated power
EELFS	electron energy loss fine structure	ES	expert system
EELS	electron energy loss spectra (-oscopy)	ESA	European Space Agency
EEPLD	electrically erasable PLD	ESCA	electron spectroscopy for chemical analysis
EEPROM	electrically erasable PROM	ESCAR	Experimental Superconducting Accelerating Ring
EFG	edge-defined film fed growth	ESD	electron stimulated desorption <i>or</i> electrostatic discharge
EFIE	electric field integral equation	ESDIAD	electron stimulated desorption ion angular distributions
EFL	emitter-follower logic <i>or</i> emitter function logic		
EFM	extended Flygare method		
EFT	electronic funds transfer		
EGA	Enhanced Graphics Adaptor		
EGG	electrogastrography (-gram)		
EHD	electrohydrodynamics		
EHDTV	enhanced high-definition TV		

ESF	engineering safety features	FEM	field emission microscopy <i>or</i> finite element method
ESM	electronic support measures	FER	Fusion Experimental Reactor (Japan) <i>or</i> frame error rate
ESOC	European Space Operations Centre	FES	functional electrical stimulation
ESP	electrostatic precipitators	FET	field effect transistor
ESPI	electronic speckle pattern interferometry	FFH	fast frequency hopping
ESPRIT	estimation of signal parameters by rotational invariance techniques <i>or</i> European Strategic Programme for Research in Information Technology	FFHR	fusion-fission hybrid reactor
ESR	electron spin resonance <i>or</i> equivalent series resistance	FFT	fast Fourier transform
ESS	electronic switching system <i>or</i> environmental stress screening	FFTF	Fast Flux Test Facility
ESTELLE	Extended State Transition Language	FGD	flue gas desulphurisation
ET	bis(ethylenedithio)-tetrathiafulvalene	FGM	functionally graded material(s)
ETA-II	Engineering Test Accelerator-II	FH-SS	frequency hopped spread spectrum
ETACS	Extended Total Access Communications System	FH-SSMA	frequency hopped SSMA
ETM	engineering test model	FHNC	Fermi hypernetted chain
ETSI	European Telecommunications Standards Institute	FIB	focused ion beam
ETV	enhanced TV	FIFO	first in, first out
EU	European Union	FIM	field ion microscopy
EUT	equipment under test	FIMOS	floating gate ionisation injection metal-oxide-semiconductor
EUV	extreme UV	FIPOS	full isolation by porous oxidised silicon
EV	electric vehicle	FIR	far IR <i>or</i> finite impulse response
EW	electronic warfare	FISH	fluorescence in-situ hybridisation
EX-OR	exclusive OR (logic)	FISO	fast in, slow out
EXAFS	extended X-ray absorption fine structure	FITL	fibre in the loop
EZW	embedded zerotree wavelet	FLAIR	flow-sensitive alternating inversion recovery
F-N	Fowler-Nordheim	FLC	ferroelectric liquid crystal
F/V	frequency-to-voltage	FLCD	ferroelectric liquid crystal display
FAA	Federal Aviation Administration	FLIR	forward looking infra-red
FACTS	flexible AC transmission system	FLL	frequency locked loop
FAMOS	floating gate avalanche MOS	FLOPS	floating point operation(s) per second
FBC	fluidised bed combustion	FLOTOX	floating-gate tunnel oxide
FBG	fibre Bragg grating	FM	frequency modulation
FBL	fly-by-light	FMEA	failure mode and effects analysis
FBR	fast breeder reactor	FMECA	failure modes effects and criticality analysis
FCAW	flux-cored arc welding	FMIT	Fusion Materials Irradiation Test Facility
FCC	face-centred cubic <i>or</i> Federal Communications Commission (USA)	FMR	ferromagnetic resonance
FCFS	first come first served	fMRI	functional magnetic resonance imaging
FCI	fuel-cladding interaction	FMS	flexible manufacturing system <i>or</i> flight management system
FCMA	frequency comb multiple access	FOG	fibre optic gyroscope
FCOB	flip chip on board	FORTAN	Formula Translation (language)
FCT	field-controlled thyristor	FOTS	fibre optic transmission system
FDD	floppy disc drive <i>or</i> frequency division duplex	FOV	field of view
FDDI	fibre distributed data interface	FP	functional programming
FDM	frequency division multiplex(ing)	FPA	focal plane array
FDMA	frequency division multiple access	FPAA	field programmable analogue array
FDNC	frequency dependent negative conductance	FPC	fusion power core
FDNR	frequency dependent negative resistance	FPD	flat panel display
FDTD	finite difference time-domain	FPGA	field programmable gate array
FDTS	fixed delay tree search	FPLA	field programmable logic array
FEA	finite element analysis <i>or</i> field emitter array	FPLMTS	future public land mobile telecommunication system
FEC	forward error correction	FPT	finite perturbation theory
FECFET	floatated electron channel FET	FQHE	fractional quantum Hall effect
FECL	feedback ECL	FRAM	ferroelectric random access memory
FED	Fusion Engineering Device (USA) <i>or</i> field emission display	FRAP	fluorescence recovery after photobleaching
FEDC	Fusion Engineering Device Centre (USA)	FRED-FET	fast recovery epitaxial diode FET
FEL	free electron laser	FRMR	field reversed mirror reactor
		FROG	frequency resolved optical gating
		FSDE	fission suppressed direct enrichment (breeder blanket)
		FSGO	floating spherical Gaussian orbitals

FSK	frequency-shift keying	GP	Guinier-Preston
FSM	finite state machine	GPC	generalised predictive control
FSR	full scale range	GPED	gas phase electron diffraction
FSS	fixed satellite service <i>or</i> frequency selective surface	GPIB	general-purpose interface bus
FT	Fourier transform	GPM	ground potential model
FTIR	Fourier transform IR <i>or</i> frustrated total internal reflection	GPS	Global Positioning System
FTP	File Transfer Protocol	GQR	giant quadrupole resonance
FTR	Fast Test Reactor	GR	general relativity
FTTB	fibre-to-the-building	GRIN	graded (<i>or</i> gradient) refractive index
FTTC	fibre-to-the-curb	GRINSCH	gradient-index separate confinement heterostructure
FTTH	fibre-to-the-home	GSi	gigascale integration
FWHM	full width half maximum	GSM	global system for mobile communications <i>or</i> Groupe Speciale Mobile
FWM	four wave mixing	GSMBE	gas-source molecular beam epitaxy
FZ	floating zone	GSPC	gas scintillation proportional chamber (<i>or</i> counter)
FZP	Fresnel zone plate	GT	group technology
GA	genetic algorithm	GTAW	gas tungsten arc welding
GABA	γ -aminobutyric acid	GTD	geometrical theory of diffraction
GAMBIT	gate modulated bipolar transistor	GTHTGR	gas turbine HTGR
GANIL	Grand Accelérateur National à Ions Lourds	GTO	gate turn-off <i>or</i> Gaussian-type orbitals
GASH	guanidine aluminium sulphate hexahydrate	GUI	graphical user interface
GCB	gas circuit breakers	GUT	grand unified theory
GCC	gasification combined cycle	GVB	generalised valence bond
GCFR	gas-cooled fast breeder reactor	HALT	highly accelerated life test(ing)
GCHWR	gas cooled heavy water moderated reactor	HASL	hot air solder levelling
GCM	general circulation model <i>or</i> generator coordinate method	HASS	highly accelerated stress screening
GCR	group code recording	HAST	highly accelerated stress test(ing)
GDR	giant dipole resonance	HAWT	horizontal axis wind turbines
GDSS	group decision support system	HB	horizontal branch
GEO	geostationary orbit	HBM	human body model
GETR	General Electric Test Reactor	HBS	home bus system
GF	Galois field	HBT	heterojunction bipolar transistor <i>or</i> N-(p-hexyloxybenzylidene)-p-toluidene
GFSK	Gaussian frequency shift keying	HCDA	hypothetical core disruptive accident
GHF-NO-CI	generalised Hartree-Fock/natural orbital/configuration interactions	HCI	human-computer interaction
GIAO	gauge-invariant atomic orbitals	HCMOS	high-speed complementary MOS
GIC	generalised immittance convertor <i>or</i> geomagnetically induced currents <i>or</i> graphite intercalation compound	HCP	hexagonal close packed
GIDL	gate-induced drain leakage	HCSEL	horizontal cavity surface emitting laser
GIF	graphical image format	HD-MAC	high-definition MAC
GIS	gas-insulated system (substation <i>or</i> switchgear) <i>or</i> geographic information system	HD-VCR	high-definition VCR
GITL	gas-insulated transmission line	HDD	hard disc drive
GKS	Graphical Kernel System	HDDR	hydrogenation disproportionation desorption recombination
GLONASS	Global Orbiting Navigation Satellite System	HDI	high-density interconnect
GMA	gas metal arc	HDL	hardware description language
GMDH	group method of data handling	HDLC	high-level data link control
GMDSS	Global Maritime Distress and Safety System	HDM	hot dark matter
GMI	giant magnetoimpedance	HDMI	high-density multichip interconnect
GMR	giant magnetoresistance <i>or</i> giant monopole resonance	HDPE	high-density polyethylene
GMRF	guided mode resonance filter	HDSL	high bit-rate digital subscriber lines
GMSK	Gaussian filtered MSK	HDTV	high-definition television
GMW	Gordon-Mills-Welch	HEED	high-energy electron diffraction
GNSS	Global Navigation Satellite System	HeLa	Henrietta Lacks
GO	Gaussian orbitals <i>or</i> geometrical optics	HEMP	high-altitude electromagnetic pulse
GOI	gate oxide integrity	HEMT	high electron mobility transistor
		HET	hot electron transistor
		HEU	highly enriched uranium (93% U235)
		HEU/Th	highly enriched U/Th fuel
		HEXFET	hexagonal MOSFET
		HF	Hartree-Fock <i>or</i> high-frequency
		HFC	hybrid fibre coax
		HFEF	Hot Fuel Examination Facility
		HFET	heterojunction (<i>or</i> heterostructure) FET
		HFIR	high flux isotope reactor

HFITR	High Field Ignition Test Reactor	I-V	current-voltage
HFS	Hartree-Fock-Slater <i>or</i> hyperfine structure	i.i.d.	independently identically distributed
HGMS	high-gradient magnetic separation	I/O	input/output
HI	heavy ion	I ² L	integrated injection logic
HID	high-intensity discharge	I ³ L	isoplanar I ² L
HIFET	heterointerface FET	IAEA	International Atomic Energy Agency
HIGFET	heterostructure insulated gate FET	IAR	isobaric analogue resonance
HIP	hot isostatic pressing	IAS	isobaric analogue state
HIPERLAN	high-performance (radio) LAN	IBA	interacting boson approximation
HIPPI	high-performance parallel interface	IBAD	ion beam assisted deposition
HIRF	high-intensity radiated fields	IBCN	integrated broadband communication network
HIS	hospital information system	IBFA	interacting boson-fermion approximation
HIXE	heavy ion induced X-ray emission	IBM	interacting boson model <i>or</i> International Business Machines
HJBT	heterojunction bipolar transistor	IBOC	in-band on-channel
HJFET	heterojunction FET	IBPBAC	isobutyl-4-(4'-phenylbenzylidene-amino) cinnamate
HLA	High Level Architecture	IBT	insulated base transistor
HLL	high-level language	IC	integrated circuit
HLLW	high-level liquid waste	ICA	independent component analysis
HLW	high-level waste	ICAM	integrated computer-assisted manufacturing
HMC	hidden Markov chain	ICB	ionised cluster beam
HMD	helmet mounted display	ICDF	intermediate coupling Dirac-Fock
HMM	hidden Markov model	ICE	in-circuit emulator
HMO	health maintenance organisation <i>or</i> Hückel molecular orbitals	ICF	inertial confinement fusion
HMOS	high-performance metal-oxide-semiconductor	ICMA	idle signal casting multiple access
HMTSeF	hexamethylene-tetraselenafulvalene (-inium)	ICP	inductively coupled plasma
HMTTF	hexamethyltetraathiofulvalene (-inium)	ICPP	Idaho Chemical Processing Plant
HOAB	heptyloxyazoxybenzene	ICRF	ion cyclotron range of frequencies
HOE	holographic optical elements	ICRH	ion cyclotron resonance heating
HOMO	highest occupied molecular orbitals	ICTS	isothermal capacitance transient spectra (-oscopy)
HOPG	highly oriented pyrolytic graphite	ICU	intensive care unit
HOS	higher order statistics	IDDQ	quiescent power supply current
HPCI	high-pressure coolant injection	IDEF	ICAM definition
HPCS	high-pressure core sprays	IDFL	integral diode FET logic
HPF	High Performance FORTRAN	IDL	interface definition language
HREELS	high-resolution EELS	IDT	interdigital transducer
HREM	high-resolution electron microscopy	IDTV	improved definition television
HRSG	heat recovery steam generator	IEC	interexchange carrier <i>or</i> International Electrotechnical Commission
HRTEM	high-resolution TEM	IEE	Institution of Electrical Engineers
HRV	heart rate variability	IEEE	Institute of Electrical and Electronics Engineers
HSLA	high-strength low alloy (steel)	IEPA	independent electron pair approximation
HSLAN	high-speed LAN	IES	Institute of Environmental Sciences
HST	Hubble Space Telescope	IETS	inelastic electron tunnelling spectra (-oscopy)
HT	high tension	IF	intermediate-frequency
HTGR	high-temperature gas-cooled reactor	IFA	ionisation front accelerator
HTGRSC/C	HTGR steam cycle cogeneration	IFE	intelligent front end
HTML	Hypertext Markup Language	IFF	identification friend or foe
HTSC	high-temperature superconductor	IFIP	International Federation for Information Processing
HTTP	Hypertext Transfer Protocol	IFM	instantaneous frequency measurement
HTTR	High-Temperature Engineering Test Reactor	IFS	iterated function system
HUD	head-up display	IGBT	insulated gate bipolar transistor
HV	high voltage	IGCC	integrated gasification combined cycle
HVAC	heating, ventilation and air conditioning <i>or</i> high-voltage alternating current	IGES	Initial Graphics Exchange Specification
HVDC	high-voltage direct current	IGFET	insulated gate FET
HVEM	high-voltage electron microscopy	IgG	immunoglobulin
HVIC	high-voltage integrated circuit	IGT	insulated gate transistor
HWIR	hardware-in-the-loop	IHEP	Institute of High Energy Physics
HWLWR	heavy water moderated LWR	IIR	infinite impulse response
HWR	heavy water reactor		
HZE	high Z and energy		
HZP	hot zero power		
I-FOG	interferometric fibre-optic gyroscope		

IKBS	intelligent knowledge-based system	ISP	Internet service provider
IKO	Institute v. Kernph Ouder (Amsterdam)	ISPBX	integrated services PBX
ILD	interlayer dielectric	ISR	intersecting storage ring
ILP	inductive logic programming	ISS	ion scattering spectroscopy
ILS	instrument landing system	ISX	impurity study experiment
ILW	intermediate level (radioactive) waste	IT	information technology
IM	induction motor	ITC	ionic thermocurrents
IM-DD	intensity modulated direct detection	ITEP	Institute of Theoretical and Experimental Physics
IMA	integrated modular avionics	ITO	indium tin oxide
IMAPS	International Microelectronics and Packaging Society	ITOX	internal thermal oxidation
IMD	intermodulation distortion	ITR	Ignition Test Reactor
IMPATT	impact avalanche transit time	ITU	International Telecommunication Union
IN	intelligent network	IU	Indiana University (USA)
INDO	incomplete neglect of differential overlap	IVHS	intelligent vehicle highway system
INDOR	internuclear double resonance	IVO	improved virtual orbitals
INEPT	insensitive nuclei enhanced by polarisation transfer	IVP	initial value problem
ING	intense neutron generator	J ^π	spin/parity (nuclear levels)
INO	iterative natural orbital	JAERI	Japan Atomic Energy Research Institute
INS	inertial navigation system <i>or</i> Information Network System	JANET	Joint Academic Network
INSPEC	Information Services for the Physics and Engineering Communities	JCL	job control language
INTELSAT	International Telecommunications Satellite Consortium	JDK	Java Development Kit
INTOR	International Tokamak Reactor	JEDEC	Joint Electronic Device Engineering Council
INTUG	International Trade and User Group	JET	Joint European Torus
IOC _ω	inclusion of the overlap charges in the omega	JFET	junction FET
IP	Internet Protocol	JINR	Joint Institute for Nuclear Research
IPC	Institute for Interconnecting and Packaging Electronic Circuits	JIT	just in time
IPI	intelligent peripheral interface	JPEG	Joint Photographic Experts Group
IPSE	integrated programming support environment <i>or</i> integrated project support environment	JSD	Jackson system development
IPSS	international packet switching system	JT-60	Japanese Tokamak-60
IQHE	integer quantum Hall effect	JTAG	Joint Test Action Group
IR	infra-red	JTC	joint transform correlator
IRBIC	IR beam-induced current(s) (<i>or</i> contrast)	JTE	junction termination extension
IREB	intense relativistic electron beam	JTIDS	Joint Tactical Information Distribution System
IRED	IR emitting diode	JVD	jet vapour deposition
IRFPA	IR focal plane array	KADS	knowledge acquisition and design structuring
IRL	Internet reconfigurable logic	KBS	knowledge-based system
IRQ	interrupt request	KDD	knowledge discovery in databases
IRRAS	IR reflection absorption spectra(-oscopy)	KdV	Korteweg-de Vries
IRS	information retrieval system <i>or</i> Internal Revenue Service	KEK	Japan National Laboratory for High Energy Physics
IRST	IR search and track	KGD	known good die
IS	information system	KKR	Korringa-Kohn-Rostoker
ISA	Industry Standard Architecture <i>or</i> Instrument Society of America	LAAS	local-area augmentation system
ISAR	inverse synthetic aperture radar	LAMPF	Los Alamos Meson Physics Facility
ISDN	integrated services digital network	LAN	local-area network
ISDSN	integrated services digital satellite network	LATA	local access and transport area
ISFET	ion-sensitive FET	LAWN	local-area wireless network
ISHM	International Society for Hybrid Microelectronics	LB	Langmuir-Blodgett
ISI	intersymbol interference	LBIC	light beam induced current(s)
ISL	integrated Schottky logic <i>or</i> inter-satellite link	LBLOCA	large break LOCA
ISM	industrial, scientific and medical	LC	inductance-capacitance
ISM	interstellar medium	LCA	logic cell array
ISO	independent system operator(s) <i>or</i> International Standards Organization	LCAO	linear combination of atomic orbitals
		LCBO	linear combinations of (semi-localised) band orbitals
		LCC	leadless chip carrier
		LCCC	leadless ceramic chip carrier
		LCD	liquid crystal display/device
		LCI	load commutated inverter
		LCP	Large Coil Program <i>or</i> least cost planning
		LCTF	Large Coil Test Facility
		LCTV	liquid crystal television

LD	laser diode	LOTOS	Language Of Temporal Ordering Specification
LDA	laser Doppler anemometry (-meter) <i>or</i> local density approximation	LP	linear programming
LDD	lightly doped drain	LPC	linear predictive coding
LDI	lossless discrete integrator	LPCS	low pressure core spray
LDMOS	lateral double-diffused metal oxide semiconductor	LPCVD	low pressure CVD
LDPE	low density polyethylene	LPE	liquid phase epitaxy
LDV	laser Doppler velocimetry (-meter)	LPEE	liquid phase electroepitaxy
LEAR	Low Energy Antiproton Ring	LPFL	low pinchoff-voltage FET logic
LEC	liquid encapsulated Czochralski <i>or</i> local exchange carrier	LPI	low probability of intercept <i>or</i> liquid photoimageable
LED	light emitting diode	LQ	linear quadratic
LEED	low energy electron diffraction	LQG	linear quadratic Gaussian
LEFD	Large Experimental Fusion Device	LRO	long-range order
LEIS	low energy ion scattering	LSA	least squares approximation <i>or</i> limited space charge accumulation
LEMP	lightning electromagnetic pulse	LSB	least significant bit
LEO	lateral epitaxial overgrowth <i>or</i> low-Earth orbit	LSD	local spin density <i>or</i> loop shut-down
LEP	Large Electron Positron (CERN)	LSF	line spectral frequency
LET	linear energy transfer	LSI	large-scale integration
LEU	low enrichment uranium (10% U235)	LSP	line spectrum pair
LEU/Th	low enrichment U/Th fuel	LSPB	Large Scale Prototype Breeder
LF	low-frequency	LSSD	level sensitive scan design
LFSR	linear feedback shift register	LSTF	Large Scale Test Facility
LGA	land grid array	LTCC	low-temperature co-fired ceramic
LHC	Large Hadron Collider (CERN)	LTE	local thermodynamic equilibrium
LHPG	laser heated pedestal growth	LTi	linear time invariant
LHRH	lower hybrid resonance heating	LTR	loop transfer recovery
LIF	laser induced fluorescence	LUMO	lowest unoccupied molecular orbitals
LIFO	last in, first out	LV	low voltage <i>or</i> left ventricle
LIGA	lithography galvanofomung abformung	LVQ	learning vector quantisation
LIM	linear induction motor	LW	long-wave
LIME	laser induced magnetically enhanced	LWBR	light water breeder reactor
LINAC	linear accelerator	LWHCR	light water high convertor reactor
LIS	laboratory (<i>or</i> library) information system	LWIR	long-wavelength IR
LISP	List Processor (language)	LWR	light water reactor
LLTR	Large Leak Test Rig	M-QAM	multilevel QAM
LLW	low level (radioactive) waste	M1	magnetic dipole
LMC	Large Magellanic Cloud	M2	magnetic quadrupole
LMDS	local multichannel (<i>or</i> multipoint) distribution system	MAC	multiplexed analogue components <i>or</i> media access control
LME	liquid metal embrittlement	MAG	metal arc gas
LMFBR	liquid metal fast breeder reactor	MAGFET	magnetic field sensitive FET
LMI	linear matrix inequalities	MAGLEV	magnetic levitation
LMIS	liquid metal ion source	MAI	multiple access interference
LMR	liquid metal reactor <i>or</i> land mobile radio	MAN	metropolitan-area network
LMS	least mean square(s) <i>or</i> land mobile satellite	MAP	Manufacturing Automation Protocol <i>or</i> maximum a posteriori <i>or</i> medium access protocol
LMSS	land mobile satellite system	MARC	machine readable catalogue
LMTO	linear combination of muffin tin orbitals	MARS	Mirror Advanced Reactor Study
LMXB	low-mass X-ray binary	MAS	magic angle spinning
LNA	low noise amplifier	MATE	modular automatic test equipment
LNB	low noise block	MBBA	4-methoxybenzylidene-4'n-butylniline
LNG	liquified natural gas	MBC	meteor burst communication
LO	local oscillator <i>or</i> longitudinal optical	MBE	molecular beam epitaxy <i>or</i> multi-band excitation
LOCA	loss of coolant accident	MBPT	many body perturbation theory
LOCE	loss of coolant experiment	MBR	model-based reasoning
LOCOS	local oxidation of silicon	MCA	multichannel analyser
LOF	loss of flow	MCCB	moulded-case circuit breakers
LOFT	Loss of Flow Test Facility	MCCI	molten core-concrete interaction
LOFW	loss of feedwater	MCD	magnetic circular dichroism
LOLP	loss of load probability	MCFC	molten carbonate fuel cell
LOOSP	loss of on-site power	MCFR	magnetic confinement fusion reactor
LOS	line of sight <i>or</i> loss of signal		

MCM	multichip module <i>or</i> multicarrier modulation	MLTF	multilayer thick film
MCP	microchannel plate	MLW	medium level (radioactive) waste
MCSCF	multiconfiguration SCF	MM	millimetre
MCVD	modified chemical vapour deposition	MMC	metal-matrix composite
MCX α	multiconfiguration X α	MMDS	microwave (<i>or</i> multichannel) multipoint distribution system
MDS	maximum distance separable	MMF	magnetomotive force <i>or</i> multimode fibre
MEC	molecular electron correlation(s)	MMI	man-machine interface
MEG	magnetoencephalography (-gram)	MMIC	monolithic microwave integrated circuit
MEI	measured equation of invariance	MMSE	minimum mean squared error
MELP	mixed excitation linear prediction	MMU	memory management units
MEMS	microelectromechanical system	MNDO	modified neglect of differential overlap
MERIE	magnetically enhanced reactive ion etching	MNOS	metal-nitride-oxide-semiconductor
MESFET	metal-semiconductor FET	MO	molecular orbitals
MEU	medium enrichment uranium (20% U235)	MOBILE	monostable-bistable transition logic element
MEU/Th	medium enrichment U/Th fuel	MOCLD	metal-organic chemical liquid deposition
MF	medium-frequency	MOCVD	metal-organic chemical vapour deposition
MFIE	magnetic field integral equation	MODFET	modulation doped FET
MFM	magnetic force microscopy	MODOR	microwave-optical double resonance
MFP	mean free path	MODPOT	modulator potential
MFQ	maximally flat quadratic	MOKE	magneto-optical Kerr effect
MFR	mirror fusion reactor	MOMBE	metal-organic MBE
MFSFET	metal-ferroelectric-semiconductor FET	MONOS	metal-oxide-nitride-oxide-semiconductor
MFSK	multiple frequency shift keying	MOPA	master oscillator power amplifier
MFTF	Mirror Fusion Test Facility	MORB	mid-ocean ridge basalt
MHD	magnetohydrodynamics	MOS	mean opinion score <i>or</i> metal-oxide-semiconductor
MHEG	Multimedia and Hypermedia Experts Group	MOSFET	metal-oxide-semiconductor FET
MHS	message handling system	MOSIS	metal oxide semiconductor implementation service
MHTGR	modular HTGR	MOST	metal-oxide-semiconductor transistor
MIC	microwave integrated circuit	MOV	metal oxide varistor
MID	magnetically insulated diode <i>or</i> moulded interconnect device	MOVPE	metal-organic vapour phase epitaxy
MIDI	musical instrument digital interface	MOX	mixed oxide fuel
MIDP	microwave induced delayed phosphorescence	MP-CELP	multi-pulse CELP
MIG	metal inert gas <i>or</i> metal-in-gap	MPEG	Moving Picture Experts Group
MIL-STD	military standard	MPH	moving plasmoid heater
MIM	metal-insulator-metal	MPI	Message Passing Interface
MIMD	multiple input (instruction), multiple data	MPP	massively parallel processing
MIMIC	millimetre-wave monolithic integrated circuit	MPPT	maximum power point tracking
MIMO	multiple input, multiple output	MPSK	multiple phase shift keying
MIN	multiprocessor interconnection network	MPU	microprocessing unit
MIND	mass impregnated non-draining	MQORC	modified quadrature overlapped raised cosine
MINDO	modified incomplete NDO	MQW	multiple quantum well
MIPS	million instructions per second	MR	magnetoresistive
MIS	management information system <i>or</i> metal-insulator-semiconductor	MRAC	model reference adaptive control
MISFET	metal-insulator-semiconductor FET	MRC	minimum resolvable contrast
MISO	multiple input, single output	MRD	multiple-reference double excitation
MIT	Massachusetts Institute of Technology (USA)	MRI	magnetic resonance imaging
MITATT	mixed tunnelling avalanche transit time	MRINDO	modified Rydberg INDO
ML	Martin-Löf	MRP	manufacturing resources planning <i>or</i> materials requirements planning
ML-EM	maximum likelihood expectation maximization	MRS	monitored retrievable storage (radioactive waste) <i>or</i> magnetic resonance spectroscopy
MLB	multilayer board	MRT	minimum resolvable temperature
MLC	multilayer ceramic	MS	management science
MLE	maximum likelihood estimation <i>or</i> molecular layer epitaxy	MSB	most significant bit
MLP	multilayer perceptron	MSE	mean square error
MLS	microwave landing system <i>or</i> multi-level secure	MSELP	mixed sinusoidally excited linear prediction
MLSE	maximum likelihood sequence estimation	MSGD	micro-strip gas detector
		MSI	medium scale integration
		MSK	minimum shift keying
		MSM	metal-semiconductor-metal

MSR	molten salt reactor	NEMA	National Electrical Manufacturers Association
MSS	mobile satellite system	NET	Next European Tokamak
MSSM	minimal supersymmetric standard model	NETD	noise equivalent temperature differential
MSSW	magnetostatic surface wave	NEXAFS	near-edge X-ray absorption fine structure
MSU	Michigan State University	NEXT	near-end crosstalk
MSW	magnetostatic waves	NGS	nuclear generating station
MSX α	multiple scattering X α	NHS	National Health Service (UK)
MT	machine translation <i>or</i> magnetotelluric	NIC	negative impedance convertor
MTBF	mean time between failures	NICAM	near-instantaneously companded audio multiplex
MTF	modulation transfer function	NIR	near IR
MTI	moving target indicator	NIST	National Institute of Standards and Technology (USA)
MTL	merged-transistor logic	NLC	nematic liquid crystal
MTR	maximum transition run-length	NLDC	nonlinear directional coupler
MTTF	mean time to failure	NLMS	normalised least mean square(s)
MTTR	mean time to repair	NLO	next-to-leading order <i>or</i> nonlinear optical
MTX α	muffin-tin X α	NLP	natural language processing
μ -TAS	micro total analysis system	NLTE	non-local thermodynamic equilibrium
μ CF	muon-catalysed fusion	NMOS	n-channel MOS
μ P	microprocessor	NMR	nuclear magnetic resonance
μ SR	muon spin rotation (resonance)	NMR-ON	NMR on oriented nuclei
MUF	material unaccounted for <i>or</i> maximum usable frequency	NMRR	normal-mode rejection ratio
MUMPS	Multi-User Multi-Programming System	NMS	network management system
MUSE	multiple sub-Nyquist sampling encoding	NNI	network node interface
MUSIC	multiple signal characterisation	NNDO	neglect of non-neighbour differential overlap
MUX	multiplexer(-ing)	NOAA	National Oceanic and Atmospheric Administration (USA)
MV	medium voltage	NOFC	New Oxide Fuels Complex (BNFL)
MVDR	minimum variance distortionless response	NOR	NOT-OR (logic)
MVDS	multipoint video distribution system	NOVA	nonoverlapping super-self-aligned
MVTL	modified variable threshold logic	NOW	network of workstations
MWIR	mid-wavelength IR	NP	nondeterministic polynomial
MWNT	multi-wall(ed) nanotube	NPL	National Physical Laboratory (UK)
MWPC	multiwire proportional chamber	NPP	nuclear power plant
NA	numerical aperture	NQR	nuclear quadrupole resonance
NAA	neutron activation analysis	NRC	Nuclear Regulatory Commission (USA)
NAL	National Accelerator Laboratory	NRD	nonradiative dielectric
NAND	NOT-AND (logic)	NRM	natural remanent magnetisation
NAPLPS	North American Presentation Level Protocol Syntax	NRZ	non-return to zero
NASA	National Aeronautics and Space Administration	NRZI	NRZ inverted
NASICON	sodium zirconium silicate phosphate	NS	Navier-Stokes
NATO	North Atlantic Treaty Organisation	NSLS	National Synchrotron Light Source
NAVSTAR	Navigational Satellite Timing and Ranging	NSOM	near-field scanning optical microscopy
NBETF	Neutral Beam Engineering Test Facility	NSPUdT	natural single phase unidirectional transducer
NBFM	narrowband frequency modulation	NSRR	Nuclear Safety Research Reactor
NBI	narrow band interference <i>or</i> neutral beam injection	NSSS	nuclear steam supply system
NBPS	neutral beam power systems	NTC	negative temperature coefficient
NC	numerical control	NTD	neutron transmutation doping
NCAR	National Center for Atmospheric Research (USA)	NTE	network termination equipment
NCBR	nitride cooled breeder reactor	NTL	nonthreshold logic
NCMET	non-closed shell many electron theory	NTSC	National Television Standards Committee <i>or</i> National Television Systems Committee
NCSL	National Conference of Standards Laboratories	NTT	Nippon Telegraph and Telephone
NDC	negative differential conductance (-ivity)	NTU	network termination unit
NDDO	neglect of diatomic differential overlap	NURBS	non-uniform rational B-spline
NDE	nondestructive evaluation	NVG	night vision goggles
NDO	neglect of differential overlap	NVL	night vision laboratory
NDR	negative differential resistance	NVLAP	National Voluntary Laboratory Accreditation Program
NDRO	nondestructive readout	NVM	nonvolatile memory
NDSF	non-dispersion-shifted fibre	NVRAM	nonvolatile RAM
NDT	nondestructive testing		
NEA	negative electron affinity		
NEC	National Electric Code		

PTT	Posts, Telephones and Telegraphs	RAN	radio-area network
PV	photovoltaic	RARE	rapid acquisition with relaxation enhancement
PVA	polyvinyl alcohol	RBE	relative biological effectiveness
PVC	polyvinyl chloride	RBF	radial basis function
PVD	physical vapour deposition	RBMK	light water cooled, graphite moderated reactor
PVDF	polyvinylidene fluoride	RBOC	Regional Bell Operating Company
PVER	pattern visual evoked response	RBS	Rutherford backscattering
PVM	Parallel Virtual Machine	RBSOA	reverse biased safe operating area
PWA	partial wave analysis <i>or</i> printed wiring assembly	RC	resistance-capacitance
PWB	printed wiring board	RCCB	residual current circuit breaker
PWBA	plane wave Born approximation	RCD	residual current device
PWIA	plane wave impulse approximation	RCIC	reactor core isolation cooling
PWM	pulse width modulation	RCS	radar cross-section <i>or</i> rapid cycling synchrotron <i>or</i> reactor coolant systems
PWR	pressurised water reactor	RCTL	resistor-capacitor-transistor logic
PXI	PCI extensions for instrumentation	RDBMS	relational DBMS
PZT	lead zirconate titanate	RDS	Radio Data System
QA	quality assurance	RDSS	radio determination satellite service
QAM	quadrature amplitude modulation	REA	rod ejection accident
QASK	quadrature amplitude shift keying	REE	rare earth element(s)
QBO	quasi-biennial oscillation	REELS	reflection electron energy loss spectra (-oscopy)
QC	quality control	RELP	residual excited linear prediction
QCD	quantum chromodynamics	REM	reflection electron microscopy <i>or</i> rare earth metal(s) <i>or</i> rapid eye movement
QCM	quartz crystal microbalance	REMPI	resonance enhanced multiphoton ionisation
QCPM	quadrature continuous phase modulation	RESURF	reduced surface field
QCSE	quantum confined Stark effect	RF	radiofrequency
QD	quantum dot	RFI	RF interference
QDMBPT	quasi-degenerate MBPT	RFIC	RF integrated circuit
QED	quantum electrodynamics	RFP	reversed field pinch <i>or</i> request for proposals
QFP	quad-flat-pack <i>or</i> quantum flux parametron	RFPR	reversed field pinch reactor
QFSK	quadrature frequency shift keying	RFX	reversed field (pinch) experiment
QFT	quantum field theory	RG	renormalisation group
QGP	quark-gluon plasma	RGa	residual gas analyser
QHD	quantum hydrodynamics	RGB	red, green, blue
QHE	quantum Hall effect	RGM	resonating group method
QMD	quantum molecular dynamics	RHEED	reflection high-energy electron diffraction
QMF	quadrature mirror filter	RHET	resonant hot electron transistor
QML	qualified manufacturers list	RHF	restricted Hartree-Fock
QORC	quadrature overlapped raised cosine	RHIC	relativistic heavy ion collider
QoS	quality of service	RIA	reactivity initiated accident
QOSRC	quadrature overlapped squared raised cosine	RIB	radioactive ion beam
QPL	qualified parts (or products) list	RIBE	reactive ion beam etching
QPM	quark-parton model	RICH	ring imaging Cherenkov detector
QPO	quasi-periodic oscillation	RIE	reactive ion etching
QPR	quadrature partial response	RINDO	Rydberg incomplete NDO
QPRS	quadrature partial response signalling	RISC	reduced instruction set computer (-ing)
QPSK	quaternary phase shift keying	RKKY	Rudermann-Kittel-Kasuya-Yosida
QRC	quasi-resonant converter	RLC	resistance-inductance-capacitance
QSO	quasi-stellar object (quasar)	RLL	run-length limited
QTAG	Quality Test Action Group	RLS	recursive least squares
QW	quantum well	RLSA	radial line slot antenna
QWH	quantum well heterostructure	RMS	root-mean-square
QWIP	quantum well IR photodetector	RNA	ribonucleic acid
QWITT	quantum well injection transit time	RNS	residue number system
R&D	research and development	ROC	receiver operating characteristic
RACE	Research and Development in Advanced Communications Technologies in Europe	ROM	read-only memory
RAD	ribbon-against-drop	ROV	remotely operated vehicle
RAID	redundant arrays of inexpensive disks	ROXNOX	reoxidised nitrided oxide
RAM	radar absorbing material <i>or</i> random access memory <i>or</i> reliability, availability and maintainability	RPA	random phase approximation
RAMDAC	random access memory digital/analogue convertor	RPAE	RPA with exchange

RPC	resistive plate chamber/counter <i>or</i> remote procedure call	SCFL	source-coupled FET logic
RPM	relaxation potential model <i>or</i> revolutions per minute	SCH	separate confinement heterostructure
RPV	reactor pressure vessel <i>or</i> remote piloted vehicle	SCI	scalable coherent interface
RS	Reed-Solomon	SCID	severe combined immunodeficiency
RSA	reverse saturable absorber <i>or</i> Rivest-Shamir-Adleman	SCL	space charge limited
RSCE	reverse short channel effect	SCM	scanning capacitance microscopy <i>or</i> subcarrier multiplex(ing)
RSF	response surface function	SCP	service control point
RSFQ	rapid single flux quantum	SCPC	single channel per carrier
RT	room temperature	SCPI	small-computer programmable instrument <i>or</i> standard commands for programmable instruments
RTA	rapid thermal annealing	SCR	silicon-controlled rectifier
RTCVD	rapid thermal CVD	SCSI	Small Computer System Interface
RTD	resonant tunnelling diode	SCTF	Slab Core Test Facility
RTG	radioisotope thermoelectric generators	SDB	silicon direct bonding
RTI	road traffic informatics	SDF	synthetic discriminant function
RTL	resistor-transistor logic <i>or</i> register transfer level	SDFL	Schottky-diode FET logic
RTN	rapid thermal nitridation	SdH	Shubnikov-de Haas
RTO	rapid thermal oxidation	SDH	synchronous digital hierarchy
RTP	rapid thermal processing	SDI	selective dissemination of information <i>or</i> Strategic Defense Initiative (USA)
RTT	resonant tunnelling transistor	SDK	software development kit
RTTY	radio teletypewriter <i>or</i> remote teletype terminal	SDL	Specification and Description Language
RTV	room temperature vulcanizing	SDLC	synchronous data link control
RVB	resonating valence bond	SDM	space division multiplexing
RWG	Rao-Wilton-Glisson	SDMA	space division multiple access
S/H	sample and hold	SDW	spin density wave
S/N	signal-to-noise	SEAM	scanning electron acoustic microscopy
SAA	Systems Application Architecture	SECAM	sequential colour and memory
SAED	selected area electron diffraction	SED	stochastic electrodynamics
SAG	self-aligned gate	SEE	single event effect(s)
SAINT	self-aligned implantation for N ⁺ -layer technology	SEED	self-electrooptic effect device
SAIR	synthetic aperture interferometric radar	SEG	selective epitaxial growth
SAM	scanning acoustic (<i>or</i> Auger) microscopy <i>or</i> self-assembled monolayer <i>or</i> serial access memory	SEI	Software Engineering Institute
SAMO	simulated ab initio molecular orbitals	SEIG	self-excited induction generator
SAMOS	stacked gate avalanche injection metal-oxide-semiconductor	SEL	surface emitting laser
SAMPLE	simulation and modelling of profile in lithography and etching	SEM	scanning electron microscopy
SAN	small-area network	SEMI	Semiconductor Equipment and Material International Association
SANS	small-angle neutron scattering	SEP	somatosensory evoked potential
SAR	synthetic aperture radar <i>or</i> specific absorption rate	SERC	Science and Engineering Research Council
SARSAT	search and rescue satellite aided tracking	SERS	surface enhanced Raman scattering
SAW	surface acoustic waves <i>or</i> self-avoiding walk	SETI	search for extraterrestrial intelligence
SAXS	small-angle X-ray scattering	SEU	single event upset
SBE	super birefringence effect	SEXAFS	surface extended X-ray absorption fine structure
SBH	strip buried heterostructure	SFE	solar-flare effect
SBLOCA	small-break LOCA	SFG	sum frequency generation
SBS	stimulated Brillouin scattering	SFL	substrate-fed logic
SC	switched capacitor	SFM	scanning force microscopy
SCADA	supervisory control and data acquisition	SFUR	self-filtering unstable resonator
SCALPEL	scattering with angular limitation projection electron beam lithography	SGEMP	system generated electromagnetic pulse
SCARA	selective compliance assembly robot arm	SGHWR	steam generating heavy water reactor
SCC	stress corrosion cracking	SGML	Standard Generalized Markup Language
SCDMA	synchronous code division multiple access	SGMP	sol-gel microsphere pelletisation
SCE	service creation environment	SHF	super-high-frequency
SCF	self-consistent field	SHG	second harmonic generation
		SHOOT	superfluid helium on-orbit transfer
		SHR	self-healing rings <i>or</i> South Hall Ring (MIT-Bates)
		SHS	self-propagating high-temperature synthesis
		SHV	super-high votage

SI	semi-insulating <i>or</i> Système International	SOA	safe operating area <i>or</i> semiconductor
SICOS	sidewall base contact structure		optical amplifier
SID	Society for Information Display	SoC	system on chip
SIF	stress intensity factor	SOFC	solid oxide fuel cells
SIL	single-in-line <i>or</i> solid immersion lens	SOG	spin on glass <i>or</i> strongly orthogonal
SIMD	single instruction, multiple data		geminal <i>or</i> sea of gates
SIMOS	stacked-gate injection MOS	SOHO	small office/home office
SIMOX	separation by implantation of oxygen	SOI	silicon on insulator <i>or</i> signal of interest
SIMS	secondary ion mass spectra (-oscopy)	SOIC	small outline integrated circuit
SIN	Swiss Institute of Nuclear Research	SOL	scrape-off layers
SINDO	scaled incomplete NDO	SONET	synchronous optical network
SINR	signal-to-interference-plus-noise ratio	SOP	small outline package <i>or</i> state of
SIPOS	semi-insulating polycrystalline silicon		polarisation
SIR	safe integral reactor <i>or</i> signal-to-	SOPPA	second-order polarisation propagator
	interference ratio		approximation
SIS	semiconductor-insulator-semiconductor <i>or</i>	SOR	successive over-relaxation <i>or</i> synchrotron
	superconductor-insulator-		orbital radiation
	superconductor	SOS	silicon on sapphire
SISAM	spectrometer with interference-selective	SOT	small outline transistor
	amplitude modulation	SPA	separated pair approximation
SISFET	semiconductor-insulator-semiconductor	SPARC	scalable processor architecture <i>or</i>
	FET		Standards Planning and Requirements
SISO	single input, single output		Committee (of ANSI)
SIT	static induction transistor	SPC	statistical process control <i>or</i> stored
SLA	semiconductor laser amplifier		program control
SLAC	Stanford Linear Accelerator	SPCP	single parity check product (code)
SLALOM	semiconductor laser amplifier in a loop	SPDT	single-point diamond turning <i>or</i> single
	mirror		pole, double throw
SLAM	scanning laser acoustic microscopy	SPE	solid phase epitaxy
SLC	smectic liquid crystal <i>or</i> Stanford Linear	SPEAR	Stanford Positron Electron Asymmetric
	Collider <i>or</i> subscriber loop carrier		Ring
SLD	strict logical determinacy	SPECT	single photon emission computerised
SLIA	Spiral Line Induction Accelerator		tomography
SLIC	subscriber line interface circuit	SPICE	Simulation Program with Integrated Circuit
SLM	spatial light modulator		Emphasis
SLS	strained-layer superlattice	SPIHT	set partitioning in hierarchical trees
SLSF	Sodium Loop Safety Facility	SPLEED	spin polarised low energy electron
SMA	surface mount(ed) assembly <i>or</i> shape		diffraction
	memory alloy	SPM	scanning probe microscopy
SMATV	satellite master antenna television	SPN	stochastic Petri net
SMC	Small Magellanic Cloud <i>or</i> surface	SPRITE	signal processing in the element
	mount(ed) component	SPS	Super Proton Synchrotron (CERN)
SMD	surface mount(ed) device	SPST	single pole single throw
SMDS	switched multimegabit data service	SPUDT	single-phase unidirectional transducer
SME	shape memory effect <i>or</i> small and	SPV	surface photovoltage
	medium-sized enterprises	SQAM	superposed QAM
SMES	superconductive magnetic energy storage	SQC	statistical quality control
SMF	single mode fibre	SQL	Structured Query Language
SMIF	standard mechanical interface	SQPR	staggered quadrature partial response
SMOBC	solder mask over bare copper	SQPSK	staggered quadrature PSK
SMOKE	surface magneto-optic(al) Kerr effect	SQS	self-quenching streamer chamber
SMPS	switched mode power supply	SQUID	superconducting quantum interference
SMQORC	staggered modified quadrature overlapped		device
	raised cosine	SQW	single quantum well
SMSR	side mode suppression ratio	SR	synchrotron radiation
SMT	surface mount(ed) technology	SRAM	static RAM
SN	supernova(e)	SREMP	source region electromagnetic pulse
SNA	Systems Network Architecture	SRM	switched reluctance motors
SNM	special nuclear material	SRMCASE	symmetry-restricted-multiconfiguration
SNMP	simple network management protocol		annihilation of single excitations
SNOM	scanning near-field optical microscopy	SRO	short-range order
SNR	signal-to-noise ratio <i>or</i> supernova remnant	SRS	stimulated Raman scattering
SNS	spallation neutron source <i>or</i>	SRV	safety release valve
	superconducting-normal-	SS	spread spectrum
	superconducting	SS-TDMA	satellite-switched TDMA
		SS7	Signalling System No.7

SSB	single sideband	TCE	temperature (<i>or</i> thermal) coefficient of expansion
SSBW	surface skimming bulk wave	TCM	trellis-coded modulation
SSC	sudden storm commencement <i>or</i> Superconducting Super Collider	TCNE	tetracyanoethylene
SSCR	spectrum shift controlled reactor	TCNQ	tetracyanoquinodimethane
SSFL	Schottky-barrier coupled Schottky-barrier gate FET logic	TCP/IP	Transport Control Protocol/Internet Protocol
SSFLC	surface stabilised ferroelectric liquid crystal	TCR	temperature coefficient of resistance <i>or</i> thyristor-controlled reactor
SSI	small-scale integration	TCSC	thyristor-controlled series compensation (capacitor)
SSMA	spread spectrum multiple access	TCXO	temperature-compensated crystal oscillator
SSNTD	solid-state nuclear track detector	TDD	ternary decision diagram <i>or</i> time division duplex
SSR	subsynchronous resonance	Tddb	time-dependent dielectric breakdown
SST	sea surface temperature <i>or</i> supersonic transport <i>or</i> super self-aligned technology	TDF	Technology Demonstration Facility <i>or</i> transborder data flow
SSV	structured singular value	TDHF	time-dependent Hartree-Fock
STAP	space-time adaptive processing	TDI	time delay and integration
STATCOM	static compensator	TDM	time division multiplex(ing)
STD	salinity-temperature-depth <i>or</i> subscriber trunk dialling	TDMA	time division multiple access
STEC	solar thermal energy conversion	TDMF	time-dependent mean field theory
STEM	scanning transmission electron microscopy	TDPAC	time differential PAC
STEP	Standard for Exchange of Product Data	TDR	time domain reflectometry
STI	scientific and technical information <i>or</i> shallow trench isolation	TDRSS	tracking and data relay satellite system
STL	Schottky transistor logic <i>or</i> Standard Template Library	TDS	thermal desorption spectra (-oscopy)
STM	scanning tunnelling microscopy <i>or</i> synchronous transfer mode	TE	transverse electric
STN	super twisted nematic	TEA	transversely excited atmosphere
STO	Slater-type orbitals	TED	transferred electron device <i>or</i> transient enhanced diffusion <i>or</i> transmission electron diffraction
STOL	short take-off and landing	TEGFET	two-dimensional electron gas FET
STP	Slater-transfer Preuss	TEM	transmission electron microscopy <i>or</i> transverse electromagnetic
STS	scanning tunnelling spectra (-oscopy)	TEO	transferred electron oscillator
SURMAC	surface magnetic confinement	TEOS	tetraethylorthosilicate
SUSY GUT	supersymmetric grand unified theory	TETRA	trans-European trunked radio
SVC	static VAR compensator	TEXT	Texas Experimental Tokamak
SVD	singular value decomposition	TF	toroidal field
SVM	support vector machine	TFCX	Toroidal Fusion Core Experiment
SVQ	split vector quantisation	TFEL	thin film electroluminescent
SW	short-wave	TFSOI	thin film silicon on insulator
SWAMI	sidewall masked isolation	TFT	thin film transistor
SWAP	synchronous wireless access protocol	TFTR	Tokamak Fusion Test Reactor
SWEAT	standard wafer-level electromigration accelerated test	TGA	thermogravimetric analysis
SWEPP	Stored Waste Examination Pilot Plant	TGFB	triglycine fluoroberyllate
SWNT	single wall nanotube	TGS	triglycine sulphate
SWR	sodium water reactor <i>or</i> standing wave ratio	TGSe	triglycine selenate
SXAPS	soft X-ray appearance potential spectra (-oscopy)	THA	track-and-hold amplifier
SXLS	Superconducting X-ray Lithography Source	THD	total harmonic distortion
T/H	track and hold	THF	tremendously high frequency
T/R	transmit/receive	THG	third harmonic generation
TA	transverse acoustic	THORP	Thermal Oxide Reprocessing Plant
TAB	tape automated bonding	THORS	Thermal Hydraulic Out-of-Reactor Safety Facility
TACS	Total Access Communications System	THTF	Thermal Hydraulic Test Facility
TASI	time assignment speech interpolation	TIA	Telecommunications Industry Association
TAT	transatlantic telephone cable	TID	travelling ionospheric disturbance
TBBA	terephthal-bis-butylaniline	TIG	tungsten inert gas
TBDF	transborder data flow	TIL	two-interdigitation level
TCAD	technology CAD	TINA	Telecommunications Information Network(ing) Architecture
TCAS	traffic alert and collision avoidance system	TISSS	Tester-Independent Software Support System
		TJS	transverse junction stripe

TLD	thermoluminescent dosimeter (-metry)	TV	television
TLM	transmission line matrix	TVRO	TV receive only
TM	transverse magnetic	TW	travelling wave
TMAH	tetramethyl ammonium hydroxide	TWA	TW amplifier
TMC	test module coil	TWOA	TW optical amplifier
TMHR	tandem mirror hybrid reactor	TWT	TW tube
TMMC	tetramethylammonium manganese chloride	TWTA	TWT amplifier
TMN	telecommunications management network	TXRF	total reflection X-ray fluorescence
TMR	tandem mirror reactor <i>or</i> tunnel magnetoresistance	UART	universal asynchronous receiver transmitter
TMS	truth maintenance system	UBR	unspecified bit rate
TMTSF	tetramethyltetraselenafulvalene (-inium)	UCHF	uncoupled Hartree-Fock
TMTTF	tetramethyltetrathiafulvalene (-inium)	UCN	ultra-cold neutrons
TMX-U	Tandem Mirror Experiment-Upgrade	UDP	user datagram protocol
TNS	The Next Step	UGS	unattended ground sensor
TO	transverse optical	UHF	ultra-high frequency <i>or</i> unrestricted Hartree-Fock
TOF	time-of-flight	UHPS	underground hydroelectric pumped storage
TOFMS	time-of-flight mass spectra	UHV	ultra-high voltage
TOI	thermal oxide isolation	UIMS	user interface management system
TOP	Technical Office Protocol <i>or</i> transient overpower accident	UJT	unijunction transistor
TPAD	time differential perturbed angular distribution	UK	United Kingdom
TPC	time projection chamber	UKAEA	United Kingdom Atomic Energy Authority
TPD	temperature programmed desorption	ULA	uncommitted logic array
TPP	thermal power plant	ULF	ultra-low frequency
TPS	test program(me) set	ULSI	ultra-large scale integration
TPTF	Two Phase Flow Test Facility	UMD	unitised microwave devices
TPV	thermophotovoltaic	UML	Unified Modeling Language
TQFP	thin quad flat pack	UMTS	universal mobile telecommunication system
TQM	total quality management	UNI	user-network interface
TR3	time-resolved resonant Raman	UPFC	unified power flow controller
TRAPATT	trapped plasma avalanche triggered transit	UPS	UV photoelectron spectra (-oscopy) <i>or</i> uninterruptible power supply
TRD	transition radiation detector	UPT	universal personal telecommunication
TREAT	Transient Reactor Test Facility	UPW	ultrapure water
TRM	thermoremanent magnetisation	URL	uniform resource locator
TRRR	time-resolved resonant Raman (spectra (-oscopy))	US	ultrasonic <i>or</i> United States
TRU	transuranic (waste)	USART	universal synchronous/asynchronous receiver transmitter
TRV	transient recovery voltage	USB	universal serial bus
TSA	tapered slot antenna	USRT	universal synchronous receiver/transmitter
TSC	thermally stimulated currents <i>or</i> totally self checking	UTD	uniform theory of diffraction
TSD	thermally stimulated desorption	UTP	unshielded twisted pair
TSEE	thermally stimulated exo-electron emission	UUT	unit under test
TSeF	tetraselenafulvalene (-inium)	UV	ultraviolet
TSeT	tetraselenatetracene	UWB	ultra-wideband
TSIC	thermally stimulated ionic currents	V/F	voltage-to-frequency
TSMA/PCD	tone sense multiple access/partial collision detection	VACSY	variable angle correlation spectroscopy
TSOP	thin small-outline package	VAD	vapour-phase axial deposition
TSP	travelling salesman problem	VAN	value-added network
TSR	terminate and stay resident	VANS	VAN services
TSTA	Tritium Systems Test Facility	VAWT	vertical axis wind turbine
TTC	telemetry tracking and command	VB	valence bond
TTF	tetrathiafulvalene (-inium)	VBL	vertical Bloch line
TTL	transistor-transistor logic	VBR	variable bit rate
TTMP	transit time magnetic pumping	VC	virtual circuit <i>or</i> Vapnik-Chervonenkis
TTT	temperature-time-transformation <i>or</i> tetrathiatetracene	VCCS	voltage-controlled current source
TTY	teletype terminal	VCO	voltage-controlled oscillator
TUCA	transient undercooling accident	VCR	video cassette recorder
TUCOP	transient undercooled overpower accident	VCSEL	vertical cavity surface emitting laser
TUNNETT	tunnel transit time	VCVS	voltage-controlled voltage source
		VCXO	voltage-controlled crystal oscillator
		VDM	vector dominance model <i>or</i> Vienna Development Methodology

VDMOS	vertical double diffused MOS	WARC	World Administrative Radio Conference
VDSL	very high-speed digital subscriber line	WASP	WSI associative string processor
VDT	visual display terminal	WATM	wireless asynchronous transfer mode
VDU	visual display unit	WATS	wide-area telecommunications service
VDW	van der Waals	WAXS	wide-angle X-ray scattering
VER	visual evoked response	WDF	wave digital filter
VFD	vacuum fluorescent display <i>or</i> variable-frequency drive	WDM	wavelength division multiplex(ing)
VFO	variable-frequency oscillator	WDMA	wavelength division multiple access
VGA	Video Graphics Array	WECS	wind energy conversion system
VGf	vertical gradient freeze	WHT	Walsh-Hadamard transform
VHDL	VHSIC HDL	WIMP	weakly interacting massive particle <i>or</i> windows, icons, mice, pull-down menus
VHF	very high frequency	WIP	work in progress
VHPIC	very high-performance integrated circuit	WIPO	World Intellectual Property Organisation
VHSIC	very high-speed integrated circuit	WIPP	Waste Isolation Pilot Plant
VHSOL	very high-speed optical loop	WKB	Wentzel-Kramers-Brillouin
VHV	very high voltage	WLAN	wireless LAN
VI&P	visual, intelligent and personal (communications)	WLL	wireless local loop
VIPER	verified processor for enhanced reliability	WLR	wafer-level reliability
VISA	Virtual Instrument Software Architecture	WORM	write once, read many times
VJFET	vertical junction FET	WP	word processing
VLBI	very long base line interferometry	WR	Wolf-Rayet
VLBR	very low bit rate	WSI	wafer scale integration
VLC	variable length code	WTA	winner take(s) all
VLF	very low frequency	WWER	water-moderated water-cooled reactor
VLIW	very long instruction word	WWW	World Wide Web
VLSI	very large scale integration	WYSIWYG	what you see is what you get
VM	virtual machine	WZW	Wess-Zumino-Witten
VMEbus	versatile modular E-bus	XANES	X-ray absorption near-edge structure
VMOS	vertical channel MOS	XCT	X-ray computerised tomography
VMS	Virtual Management System	XLPE	cross-linked polyethylene
VNA	vector network analyser	XLS	X-ray Lithography Source
VOC	volatile organic compound	XOR	exclusive OR (logic)
VoD	video on demand	XPD	cross-polarisation discrimination
VOR	VHF omnidirectional range	XPS	X-ray photoelectron spectra
VP	virtual path	XRD	X-ray diffraction
VPE	vapour phase epitaxy	XTEM	cross-sectional transmission electron microscopy
VPN	virtual private network	XUV	X-ray-UV
VQ	vector quantisation	YAG	yttrium aluminium garnet
VR	virtual reality	YIG	yttrium iron garnet
VRAM	video RAM	YM	Yang-Mills
VRC	visual record computer	YSO	young stellar object(s)
VRML	Virtual Reality Modeling Language	YSZ	yttria-stabilised zirconia
VS	virtual storage	YTO	YIG tuned oscillator
VSAT	very small aperture terminals	ZAMS	zero-age main sequence
VSb	vestigial sideband	ZBLA	zirconium barium lanthanum aluminium fluoride
VSELP	vector sum excited linear prediction	ZBLAN	zirconium barium lanthanum aluminium sodium fluoride
VSEPR	valence shell electron pair repulsion	ZBLANP	zirconium barium lanthanum aluminium sodium lead fluoride
VSI	voltage source inverter	ZCS	zero-current switching
VSOP	very small-outline package	ZEKE	zero kinetic energy
VSP	vertical seismic profiling	ZGS	zero gradient synchrotron
VSS	variable structure systems	ZIF	zero insertion force
VSWR	voltage standing wave ratio	ZMR	zone melting recrystallisation
VTOL	vertical take-off and landing	ZPPR	zero-power plutonium reactor
VTR	video tape recorder <i>or</i> voltage transformation ratio	ZRC	zero-field cooling(-ed)
VUV	vacuum UV	ZTP	Z toroidal pinch
VVVF	variable voltage, variable frequency	ZVS	zero-voltage switching
VXI	VME extensions for instrumentation	ZVT	zero-voltage transition
W-CDMA	wideband CDMA		
WAAS	wide-area augmentation system		
WAN	wide-area network		

Subject Index

1/f noise

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for physical access only

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AF amplifiers *see audio-frequency amplifiers*

AFM *see automatic frequency control*

AFM *see atomic force microscopy*

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see also precipitation hardening

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see also **disc drives**; **jukebox storage systems**

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CDMA *see* **code division multiple access**

CDs (audio) *see* **audio discs**

CDW *see* **charge density waves**

Cefax *see* **teletext**

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CFRP see *carbon fibre reinforced plastics*

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DASD *see magnetic disc storage*

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epitaxy *see* epitaxial growth

EPLD *see* programmable logic devices

EPMA *see* electron probe analysis

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fallout see *air pollution; radioactive pollution*

far infrared lasers see *submillimeter wave lasers*

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GMSK *see* minimum shift keying

GNSS *see* satellite navigation

goal programming *see* mathematical programming

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GPB *see* peripheral interfaces

GPS *see* Global Positioning System

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IKBS see *knowledge based systems*

illumination see *lighting*

illumination control see *lighting control*

ILS see *instrument landing systems*

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LEC growth *see crystal growth from melt*

LED *see light emitting diodes*

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